Technical Publication Transfer

Using:

ArborText, Inc. Data

MIL-D-28000A (IGES)
MIL-M-28001A (SGML)
MIL-R-28002A (Raster)
MIL-D-28003 (CGM)

Quick Short Test Report

27 October 1992

19960822 105

DTIC QUALITY INSPECTED 3

Prepared for

Electronic Systems Center

Technical Publication Transfer

Using:

ArborText Data
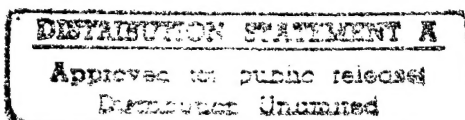
MIL-D-28000A (IGES)

MIL-M-28001A (SGML)

MIL-R-28002A (Raster)

MIL-D-28003 (CGM)

Quick Short Test Report

27 October 1992

Prepared By
Air Force CALS Test Bed
Wright-Patterson AFB, OH 45433

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This report and those involved in its preparation do not endorse any product, process, or company stated herein. Use of these means by anyone does not imply certification by the CALS Test Network (CTN).

Contents

1. Introduction

1.1 Background

The Department of Defense (DoD) Computer-aided Acquisition and Logistics Support (CALS) Test Network (CTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The CTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electrionic Systems Center (ESC).

The primary objective of the CTN is to evaluate the effectiveness of the CALS standards for technical data interchange and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the CTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by CTN participants. They also allow the CTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the CTN technical staff, gain experience using of the standards, and develope increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze ArborText's interpretation and use of the CALS standards in transferring technical publications data. ArborText used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the CTN technical staff on a 9-track magnetic tape.

2. Test Parameters

Test Plan: AFCTB 92-074

Date of
Evaluation: 27 October 1992

Evaluator: George Elwood
                                  Air Force CALS Test Bed
                                  HQ ESC/ENCS
                                  4027 Colonel Glenn Hwy
                                  Suite 200
                                  Dayton, OH 45431-1601

Data
Originator: Jim Salois
                                  ArborText, Inc.
                                  1000 Victors Way #400
                                  Ann Arbor, MI 48108

Data
Description: Technical Manual Test
                                          1 Document Declaration file
                                          1 Document Type Definitions (DTD)
                                          1 Initial Graphics Exchange Specification
                                                  (IGES) file
                                          1 Text file
                                          1 Raster file
                                          1 Computer Graphics Metafile (CGM) file

Data
Source System:

                    IGES
                          HARDWARE
                                  Unknown
                          SOFTWARE
                                  Unknown

                    Text/Standard Generalized Markup Language (SGML)
                          HARDWARE
                                  Unknown
                          SOFTWARE
                                  Unknown

Raster
>
>> **HARDWARE**
>>> Unknown
>> **SOFTWARE**
>>> Unknown

CGM
>
>> **HARDWARE**
>>> Unknown
>> **SOFTWARE**
>>> Unknown

Evaluation Tools Used:

> **MIL-STD-1840A (TAPE)**
>> SUN 3/280
>>> CTN *Tapetool v1.2.8   UNIX*
>>> AGFA Compugraphics *CAPS/CALS v40.4*

> **MIL-D-28000 (IGES)**
>> Sun SparcStation 2
>>> ArborText *iges2draw*
>>> IGES Data Analysis (IDA) *Parser/Verifier*
>>> IDA *IGESView v3.0*
>> Cheetah Gold 486
>>> Cadkey *Cadkey v4.06*

> **MIL-M-28001 (SGML)**
>> Cheetah Gold 486
>>> Datalogics *ParserStation v3.36*
>>> Exoterica *XGMLNormalizer v1.2e3.2*

> **MIL-R-28002 (Raster)**
>> SUN SparcStation 2
>>> ArborText *g42tiff*
>>> CTN *validg4*
>>> CTN *calstb.475*
>>> Island Graphics *IslandPaint 3.0*
>> Cheetah
>>> Inset Systems *HiJaak v2.02*
>>> Software Publishing Corporation
>>> (SPC) *Harvard Graphics v3.0*
>>> Xerox *Ventura Publisher*

MIL-D-28003 (CGM)
    SUN SparcStation 2
        ArborText *cgm2draw*
        Island Graphics *IslandDraw 3.0*

    Sun 3/60
        Advanced Technology Center
            (ATC) *CGM-View R2.0*
    Cheetah Gold 486
        ATC *MetaVIEW R1.12*
        ATC *MetaCHECK R2.05*
        Xerox *Ventura Publisher*

**Standards
Tested:**

    MIL-STD-1840A
    MIL-D-28000A
    MIL-M-28001A
    MIL-R-28002A
    MIL-D-28003

3. 1840A Analysis

3.1 External Packaging

The tape arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a box in accordance with ASTM D 3951. The exterior of the box was marked with the magnetic tape warning label, as required by MIL-STD1840A, para. 5.3.1.3.

The tape was not enclosed in a barrier bag as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reel showed the label indicating the recording density as required by MIL-STD-1840A, para. 5.3.1. Enclosed in the box was a packing list showing all files that were recorded on the tape.

3.2 Transmission Envelope

The 9-track tape received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The 1840A tape was run through the AFCTB *Tapetool v1.2.8* utility. No errors were encountered while evaluating the contents of the tape labels. No errors were reported while using AGFA *CAPS read1840A*.

3.2.2 Declaration and Header Fields

No errors were found in the Document Declaration file or data file headers.

4. IGES Analysis

This tape contained one (1) IGES file. This file was evaluated using IDA's *Parser/Verifier* with CALS options. No CALS errors were reported during the evaluation for CALS Class I requirements. The file was visually inspected for the required CALS statement in MIL-D-28000A, para. 3.2.1.3.1 which was found.

The file was converted using Cadkey's *Cadkey ig2c* utility with no reported errors. The resulting file was imported into Cadkey's *Cadkey*, displayed and printed without a problem.

The file was imported into IDA's *IGESView* without a reported error. The file displayed and printed without a problem.

The file was converted using ArborText's *iges2draw* utility without a reported error. The resulting file was read into Island Graphics' *IslandDraw*, displayed and printed without a problem.

5. SGML Analysis

The DTD was parsed using Exoterica's *XGMLNormalizer*. The included DTD was modified from 38784B. Several of the external entities were defined as ISO 9573-12:1991, which were not available in the AFCTB. These references were changed to specify ISO 8879. There also was a call for an ArborText math reference set. This file was available in the AFCTB. Once the changes were made, the DTD compiled without a reported error.

The same modifications were made and the DTD was parsed using Datalogics' *ParserStation*.

The Text file parsed without a reported error. The text output specification (OS) was provided on the tape. The OS was set up for the sample Navy document. No problems were encountered when importing the file into the ArborText system located in the AFCTB.

6. Raster Analysis

The tape contained one (1) Raster file. This file was evaluated using the CTN *validg4* utility. The file was reported as meeting the current CALS MIL-R-28002A specification.

The Raster file was converted using ArborText's *g42tiff* utility and the resulting file was read into Island Graphics' *IslandPaint* without a problem.

The file was converted using Inset Systems' *HiJaak* to an IMG format. This file was then imported into the Xerox *Ventura Publisher*.

The file was converted using Rosetta Technologies' *Prepare* and then displayed using *Preview*. No problems were noted.

The file was read into the CTN *calstb.475* and displayed without a problem.

7. CGM Analysis

The tape contained one (1) CGM file. This file was evaluated using ATC's *MetaCHECK* software with CALS options. This utility reported that the files meet the current CALS specification.

The file was also evaluated using the CTN *validcgm*. Several errors were reported. However, these may indicate bugs in this utility.

The file was converted using ArborText's *cgm2draw* utility without a problem. The resulting file was read into Island Graphics' *IslandDraw*, displayed and printed.

When the file was imported directly into *IslandDraw*, nothing displayed or printed.

The file was read into and printed using ATC's *CGMView* without a reported problem.

The file was viewed using ATC's *MetaVIEW* without a reported problem.

The file was imported into the Xerox *Ventura Publisher* without a problem.

The CGM file meets the current CALS specification.

8. Conclusions and Recommendations

In summary, the MIL-STD-1840A tape from ArborText, Inc. was correct. The tape could be read properly using the CTN *Tapetool* and AGFA *CAPS* without any reported errors.

The IGES file did not have any reported CALS Class I errors when parsed. The file meets the CALS MIL-D-28000A specification.

The DTD and Text file parsed without error after some external references were changed to reflect ISO 8879 instead of ISO 9573. The SGML files meet the CALS MIL-M-28001A specification.

The Raster file meets the CALS MIL-R-28002A specification.

The CGM file meets the CALS MIL-D-28003 specification.

The tape meets the CALS MIL-STD-1840A requirements.

9. Appendix A - Tape Tool Report Logs

9.1 Tape Catalog

CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8

  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    MIL-R-28003 (1988) - Digital Representation For Communication Of
                         Illustration Data; CGM Application Profile
    ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Oct 27 13:48:28 1992

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set108

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D001C003	CGM	F/00080	00800/000026	Extracted
D001G002	DTD	D/00260	02048/000011	Extracted
D001H006	Output Specification	D/00260	02048/000026	Extracted
D001P005	PDL	D/00260	02048/000182	Extracted
D001Q004	IGES	F/00080	02000/000004	Extracted
D001R007	Raster	F/00128	02048/000006	Extracted
D001T001	Text	D/00260	02048/000018	Extracted

Catalog Process terminated normally.

9.2 Tape Evaluation Log

CALS Test Network Tape Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    ANSI X3.27 (1987) - File Structure and Labeling of Magnetic Tapes
                        for Information Interchange
    ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Tue Oct 27 13:48:03 1992

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1CALS01   jfs   4

  Label Identifier: VOL1
  Volume Identifier: CALS01
  Volume Accessibility:
  Owner Identifier: jfs
  Label Standard Version: 4

HDR1D001   00010001000100 92297 99364 000000Unix4.2-mimos

  Label Identifier: HDR1
  File Identifier: D001
  File Set Identifier:
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 92297
  Expiration Date: 99364
  File Accessibility:
  Block Count: 000000
  Implementation Identifier: Unix4.2-mimos

HDR2D0204800260   00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 1.

************ Tape Mark ***************

EOF1D001   00010001000100 92297 99364 000001Unix4.2-mimos

  Label Identifier: EOF1
  File Identifier: D001
  File Set Identifier:
  File Section Number: 0001
  File Sequence Number: 0001
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 92297
  Expiration Date: 99364
  File Accessibility:
  Block Count: 000001
  Implementation Identifier: Unix4.2-mimos

EOF2D0204800260   00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

<<<<< *PART OF LOG REMOVED HERE* >>>>>

************ Tape Mark ***************

HDR1D001T001   00010008000100 92297 99364 000000Unix4.2-mimos

  Label Identifier: HDR1
  File Identifier: D001T001
  File Set Identifier:
  File Section Number: 0001
  File Sequence Number: 0008
  Generation Number: 0001
  Generation Version Number: 00

Creation Date: 92297
Expiration Date: 99364
File Accessibility:
Block Count: 000000
Implementation Identifier: Unix4.2-mimos

HDR2D0204800260   00

  Label Identifier: HDR2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

  Actual Block Size Found = 2048 Bytes.

  Number of data blocks read = 18.

************ Tape Mark ***************

EOF1D001T001   00010008000100 92297 99364 000018Unix4.2-mimos

  Label Identifier: EOF1
  File Identifier: D001T001
  File Set Identifier:
  File Section Number: 0001
  File Sequence Number: 0008
  Generation Number: 0001
  Generation Version Number: 00
  Creation Date: 92297
  Expiration Date: 99364
  File Accessibility:
  Block Count: 000018
  Implementation Identifier: Unix4.2-mimos

EOF2D0204800260   00

  Label Identifier: EOF2
  Recording Format: D
  Block Length: 02048
  Record Length: 00260
  Offset Length: 00

************ Tape Mark ***************

************* Tape Mark ***************

############ End of Volume CALS01 #############

############ End Of Tape File Set #############

Deallocating /dev/rmt0...

Tape Import Process terminated normally.

9.3   Tape File Set Validation Log

CALS Test Network File Set Evaluation - Version 1.2; Release Number 8
  Standards referenced:
    MIL-STD-1840A (1987) - Automated Interchange of Technical Information
    MIL-R-28002 (1989) - Raster Graphics Representation In Binary
                          Format, Requirements For

Tue Oct 27 13:48:28 1992

MIL-STD-1840A File Set Evaluation Log

File Set: Set108

Found file: D001
Extracting Document Declaration Header Records...
Evaluating Document Declaration Header Records...

srcsys: ArborText
srcdocid: dmplan_test
srcrelid: NONE
chglvl: ORIGINAL
dteisu: 19921023
dstsys: CALS Test Network
dstdocid: dmplan_test
dstrelid: NONE
dtetrn: 19921023
dlvacc: NONE
filcnt: T1,G1,H1,Q1,R1,C1,P1
ttlcls: UNCLASSIFIED
doccls: UNCLASSIFIED
doctyp: Data Management Plan
docttl: XXXX Weapon System Data Management Plan

Found file: D001C003
Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: dmplan_test
dstdocid: dmplan_test
txtfilid: W
figid: Figure 2
srcgph: sample
doccls: UNCLASSIFIED
notes: Sample CGM file obtained from InterCAP system.

Saving CGM Header File: D001C003_HDR
Saving CGM Data File: D001C003_CGM

Found file: D001G002
Extracting DTD Header Records...
Evaluating DTD Header Records...

srcdocid: dmplan_test
dstdocid: dmplan_test
notes: Data Management Plan DTD, based on the Template in MIL-M-28001B

Saving DTD Header File: D001G002_HDR
Saving DTD Data File: D001G002_DTD

Found file: D001H006
Extracting Output Specification Header Records...
Evaluating Output Specification Header Records...

srcdocid: dmplan_test
dstdocid: dmplan_test
notes: FOSI for this document instance.

Saving Output Specification Header File: D001H006_HDR
Saving Output Specification Data File: D001H006_OS

Found file: D001P005
Extracting PDL Header Records...
Evaluating PDL Header Records...

srcdocid: dmplan_test
dstdocid: dmplan_test
txtfilid: W
doccls: UNCLASSIFIED
notes: The PostScript version of this document.

Saving PDL Header File: D001P005_HDR
Saving PDL Data File: D001P005_PDL

Found file: D001Q004
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: dmplan_test
dstdocid: dmplan_test
txtfilid: W
figid: Figure 1

srcgph: orgtree
doccls: UNCLASSIFIED
notes: Sample IGES file, created by ArborText using IslandDraw

Saving IGES Header File: D001Q004_HDR
Saving IGES Data File: D001Q004_IGS

Found file: D001R007
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: dmplan_test
dstdocid: dmplan_test
txtfilid: W
figid: NONE
srcgph: seal
doccls: UNCLASSIFIED
rtype: 1
rorient: 000,270
rpelcnt: 000720,000713
rdensty: 0300
notes: Sample CCITT Group 4 image (DoD Seal)

Saving Raster Header File: D001R007_HDR
Saving Raster Data File: D001R007_GR4

Found file: D001T001
Extracting Text Header Records...
Evaluating Text Header Records...

srcdocid: dmplan_test
dstdocid: dmplan_test
txtfilid: W
doccls: UNCLASSIFIED
notes: SGML document instance. One part only.

Saving Text Header File: D001T001_HDR
Saving Text Data File: D001T001_TXT

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D001.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

10. Appendix B - IGES Detail Analysis

10.1 File D001Q004

10.1.1 Parser/Verifier Log

```
        *** IGES DATA FILE ANALYSIS ***
        ***         MARCH 1992         ***
        ***    IGES Data Analysis      ***
        ***        (708) 449-3430      ***
```

Input file is q004.igs

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is October 27, 1992 2:35 PM

*** File and Product Name Information ***

```
   File name from sender   = './C1840_TAPE_IMAGE/d001q004.data'
   File creation Date.Time = '921023.162638'
   Model change Date.Time  = ''
   Author                  = ''
   Department              = ''
   Product name from sender = 'dmplan-da/dmplan_test/testliges'
   Destination product name = ''
```

*** Parameter Delimiters ***

```
   Delimiter  = ','
   Terminator = ';'
```

*** Originating System Data ***

```
   System ID             = 'ArborText Inc. - IslandDraw'
   Preprocessor version  = 'draw2iges Version 3.0'
   Specification version = 6 (IGES 4.0)
```

*** Precision levels ***
```
   Integer bits =    16
   Floating point .-  Exponent =   308  Mantissa =    15
   Double precision - Exponent =   308  Mantissa =    15
```

*** Global Model Data ***

```
        Model scale              =  1.0000E+00
        Unit flag                =  2
        Units                    =  'MM'
        Line weights             =  1000
        Maximum line thickness   =  1.000000E+01
        Minimum line thickness   =  1.000000E-02
        Granularity              =  1.000000E-02
        Maximum coordinate       =  2.067870E+02
```

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	23
	Blanked	0
Independence:	Independent	18
	Physically Subordinate	0
	Logically Subordinate	5
	Totally Subordinate	0
Entity use:	Geometry	0
	Annotation	23
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	23
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
106	11	0	4	Copious data - Piecewise planar, linear string(2D path)
110	0	0	2	Line
112	0	0	2	Parametric spline curve
212	0	0	4	General note
212	7	0	5	General note - multiple stack/center justified
404	0	0	1	Drawing

	406	16	0	1	Property - Drawing size
	406	8301	0	1	IDA Property - Text style
+	406	8305	0	2	Implementor entity instance
	410	0	0	1	View - Orthographic parallel

+ Indicates use of a Implementor defined form or entity.

*** Entity Count by Level ***

Level	Count
0	23

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled   23

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
-	-	-	4	-	2	2	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom

```
   .    .    .    .    .    -    .    -    Center-line
   .    .    .    .    .    -    .    -    Dotted
   .    .    .    .    .    -    .    -    User defined
```

*** Line Widths Used in Data ***

Weight	Count	Width
Defaulted	9	(0.0100)
1	6	(0.0100)
35	8	(0.3500)

*** Colors Used in Data ***

Defaulted	6	
Black	17	

```
*******************************
******  ENTITY ANALYSIS  ******
*******************************
```

*** Entity type: 106

*** Entity type: 110

-- 2 lines averaging 6.350000E+00 units --

*** Entity type: 112

*** Entity type: 212

    14 text strings in data file.
Average text aspect ratio in file is 0.7412306.
Minimum text aspect ratio in file is 0.5882811.
Maximum text aspect ratio in file is 1.0667577.

FONTS USED IN FILE

FONT	COUNT	NAME
1	14	Default ASCII Style

*** Entity type: 404

Drawing at D   5 contains 1 views.
Drawing at D   5 contains 0 annotation entities.

 *** Entity type: 406

 *** Entity type: 410

  Scale of view at D   1 is 1.000000E+00.
Orthographic View entity at D   1 has 0 clipping planes specified.
    XMIN = Not Set   XMAX = Not Set
    YMIN = Not Set   YMAX = Not Set
    ZMIN = Not Set   ZMAX = Not Set
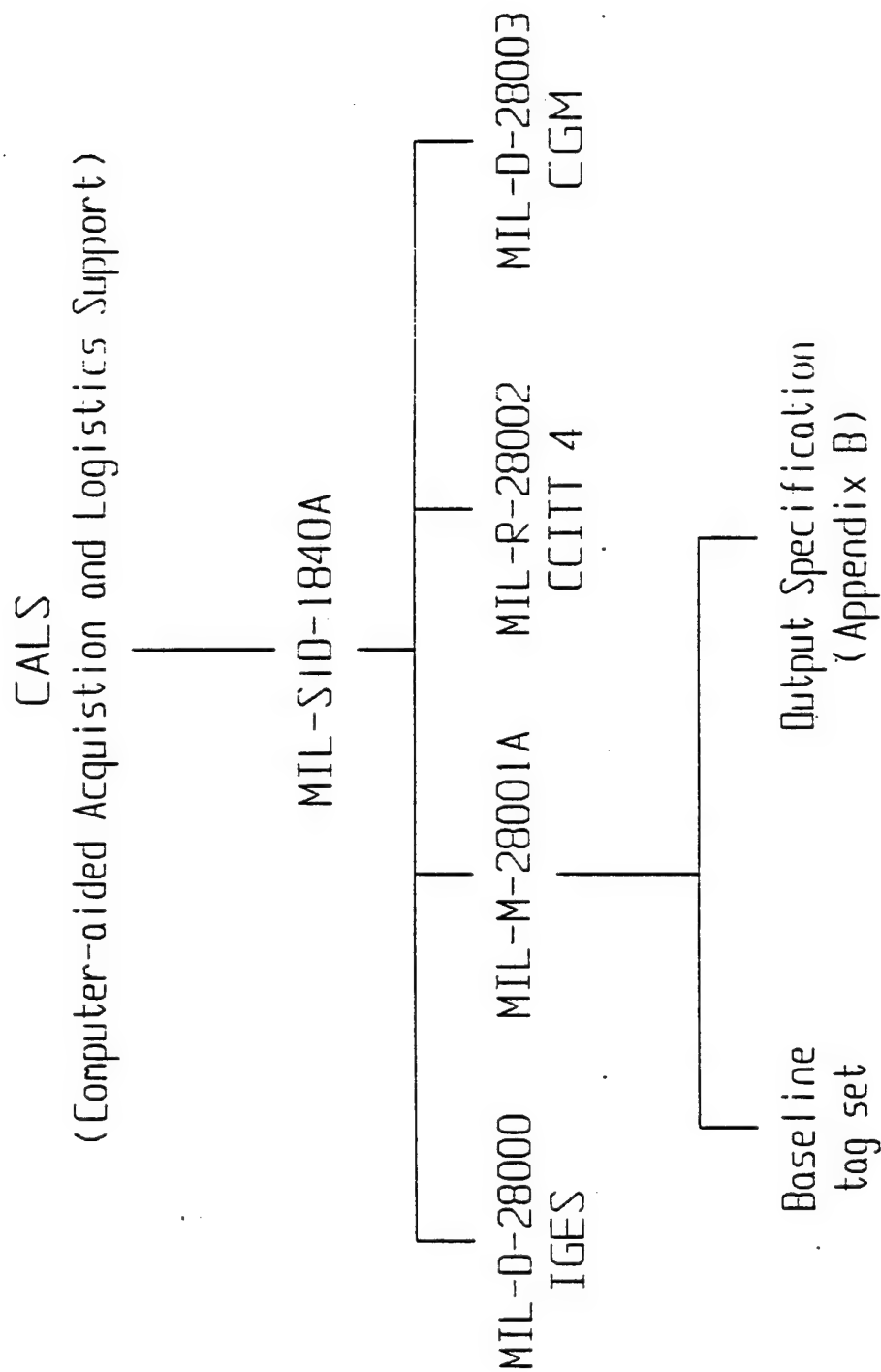

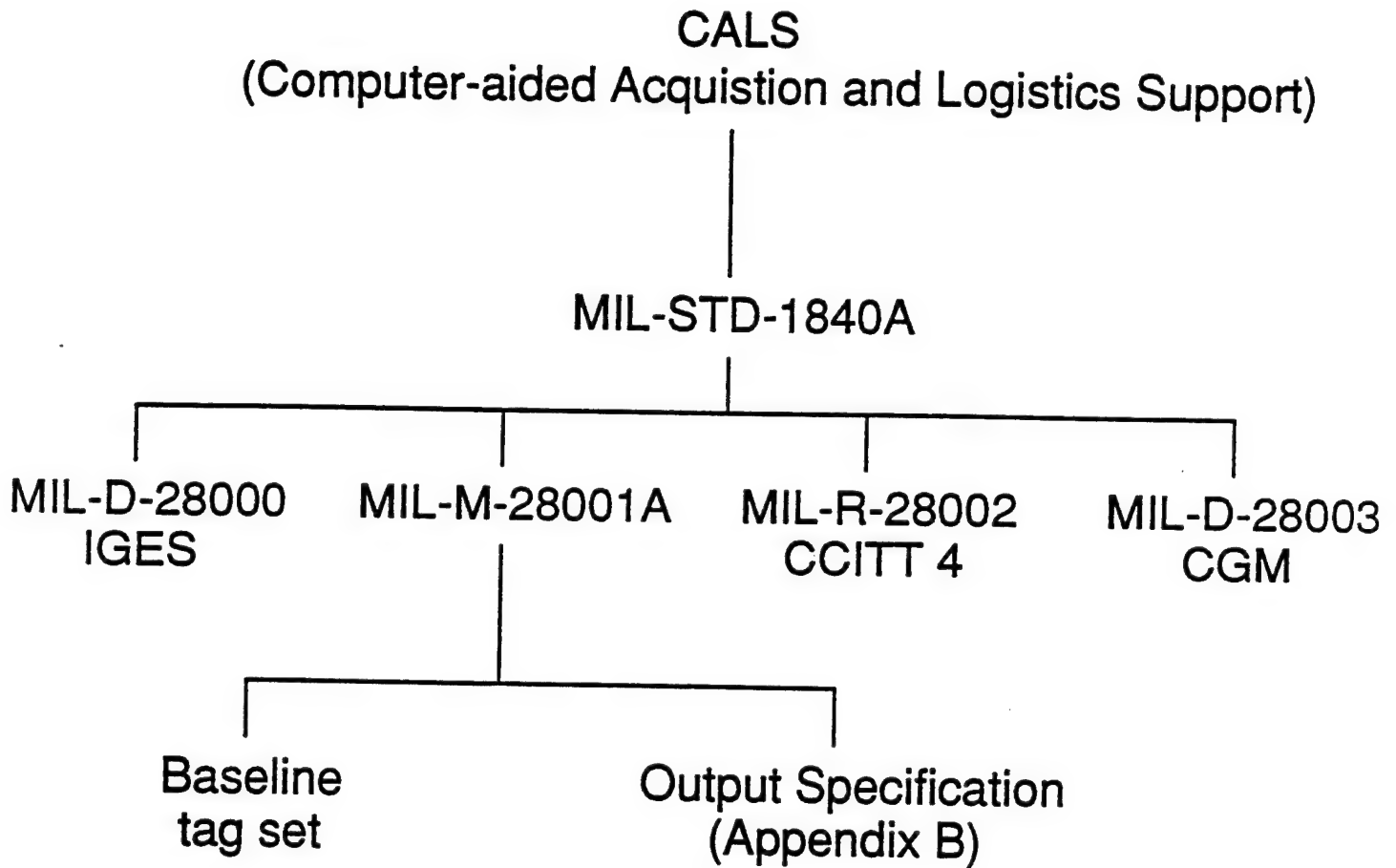 *** Message Summary ***

 *** Error Summary ***

      0 fatal errors
      0 severe errors
      0 errors
      0 warnings
      0 cautions
      0 nitpicks
      0 notes

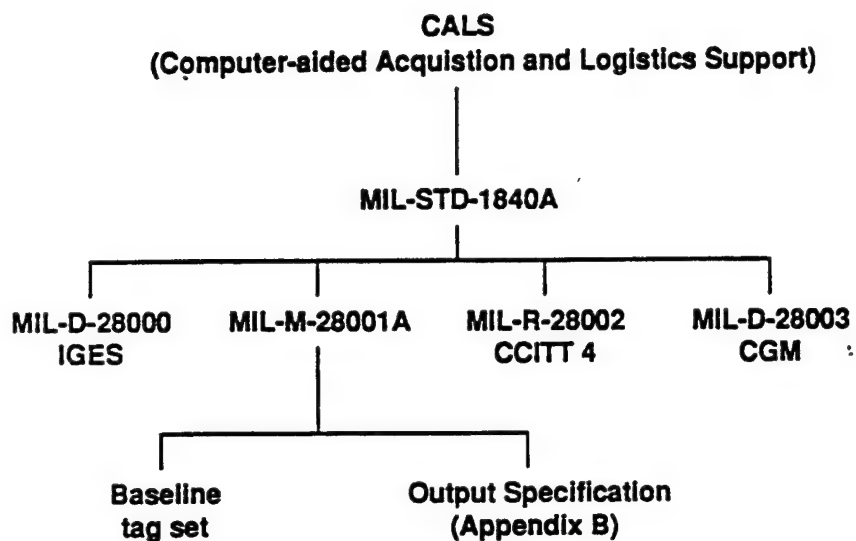 *** End of Analysis of q004.igs ***

10.1.2 Output Cadkey v4.06

CALS
(Computer-aided Acquistion and Logistics Support)

MIL-STD-1840A

MIL-D-28000
IGES

MIL-M-28001A

MIL-R-28002
CCITT 4

MIL-D-28003
CGM

Output Specification
(Appendix B)

Baseline
tag set

10.1.3   Output IGESView

CALS
(Computer-aided Acquistion and Logistics Support)

MIL-STD-1840A

MIL-D-28000
IGES

MIL-M-28001A

MIL-R-28002
CCITT 4

MIL-D-28003
CGM

Baseline
tag set

Output Specification
(Appendix B)

10.1.4   Output IslandDraw

```
                              CALS
          (Computer-aided Acquistion and Logistics Support)
                               |
                               |
                        MIL-STD-1840A
        _____|_____
       |              |                |                |
  MIL-D-28000   MIL-M-28001A      MIL-R-28002      MIL-D-28003
    IGES                           CCITT 4            CGM
                   _____|_____
                  |           |
              Baseline    Output Specification
              tag set       (Appendix B)
```

11. Appendix C - SGML Detail Analysis

11.1 Exoterica Parser

See comments in text, section 5.

12. Appendix D - Raster Detail Analysis

12.1 File D001R007

12.1.1 Output IslandPaint

13. Appendix E - CGM Detail Analysis

13.1 File D001C003

13.1.1 Parser Log MetaCHECK


```
MetaCHECK Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 10/27/92     Time:  14:46:50

Metafile Examined     : \9274\d001c003.

Pictures Examined     : All
Elements Examined     : All
Bytes    Examined     : All


====================== Trace Report ========================

Tracing not selected.

============== CGM Conformance Violation Report ==============

No Errors Detected

========== CALS CGM Profile (MIL-D-28003) Report ===========

No profile discrepancies detected.

================ Conformance Summary Report ================

MetaCHECK Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 10/27/92     Time:  14:46:54

Name of CGM under test: \9274\d001c003.
Encoding               : Binary

Pictures Examined     : All
Elements Examined   . : All
Bytes    Examined     : All

BEGIN METAFILE string : "dmplan-da/dmplan_test/test1cgm"
METAFILE DESCRIPTION  : "Arbor Text draw2cgm version 1.06 ***
```

MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 182; string contains: ""

Conformance Summary : This file conforms to the CGM specification.

                        This file meets the CALS CGM Profile (MIL-D-28003).

Summary of Testing Performed and Errors Found:

        1 Pictures Tested
      180 Elements Tested
    19650 Octets Tested

```
=================================
|   No Errors Were Detected     |
=================================
```

================ End of Conformance Report ==================

13.1.2   validcgm Log

```
Analysis for file c003.cgm using table table
ERROR: invalid times used per CGM (2), std B
ERROR: invalid times used per Picture (2), std B
(14, 160)          (1, 12, 10)     Metafile Defaults Replacement
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 3) not yet seen
(14.1, 0)          (2, 6, 8)       VDC Extent (0, 0) (32767, 32767)
ERROR: invalid times used per CGM (3), std B
ERROR: invalid times used per Picture (3), std B
(15, 172)          (1, 12, 4)      Metafile Defaults Replacement
ERROR: illegal in this state (2), std B
ERROR: required precursor (0, 4) not yet seen
(15.1, 0)          (5, 11, 2)      Text Precision  Stroke
(0, 1) occurred 1 time
(0, 2) occurred 1 time
(0, 3) occurred 1 time
(0, 4) occurred 1 time
(0, 5) occurred 1 time
(1, 1) occurred 1 time
(1, 2) occurred 1 time
(1, 3) occurred 1 time
(1, 4) occurred 1 time
(1, 5) occurred 1 time
```

(1, 6) occurred 1 time
(1, 7) occurred 1 time
(1, 8) occurred 1 time
(1, 9) occurred 1 time
(1, 10) occurred 1 time
(1, 11) occurred 1 time
(1, 12) occurred 3 times
(1, 12) occurred illegally 2 times
(1, 15) occurred 1 time
(2, 1) occurred 1 time
(2, 2) occurred 1 time
(2, 3) occurred 1 time
(2, 4) occurred 1 time
(2, 5) occurred 1 time
(2, 6) occurred 2 times
(2, 6) occurred illegally 1 time
(2, 7) occurred 1 time
(3, 1) occurred 1 time
(4, 1) occurred 146 times
(4, 7) occurred 4 times
(5, 11) occurred 1 time
(5, 11) occurred illegally 1 time
(5, 22) occurred 1 time
(5, 23) occurred 1 time
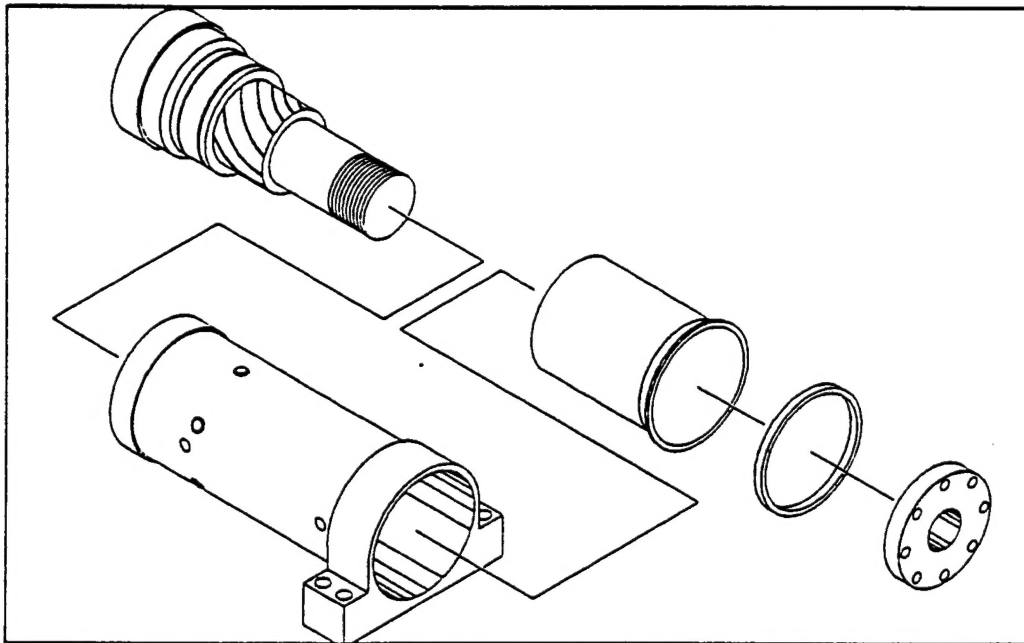(5, 34) occurred 1 time

13.1.3 Output CGM-View
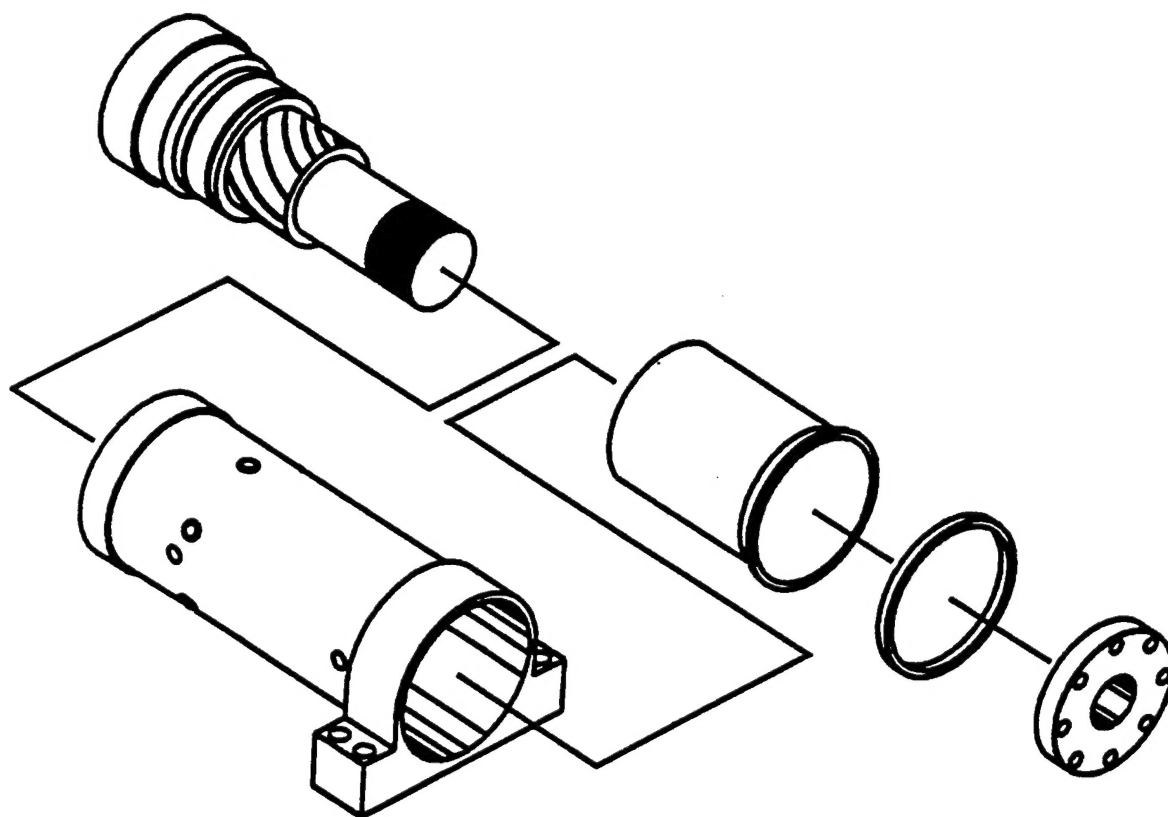
13.1.4 Output cgm2draw/IslandDraw
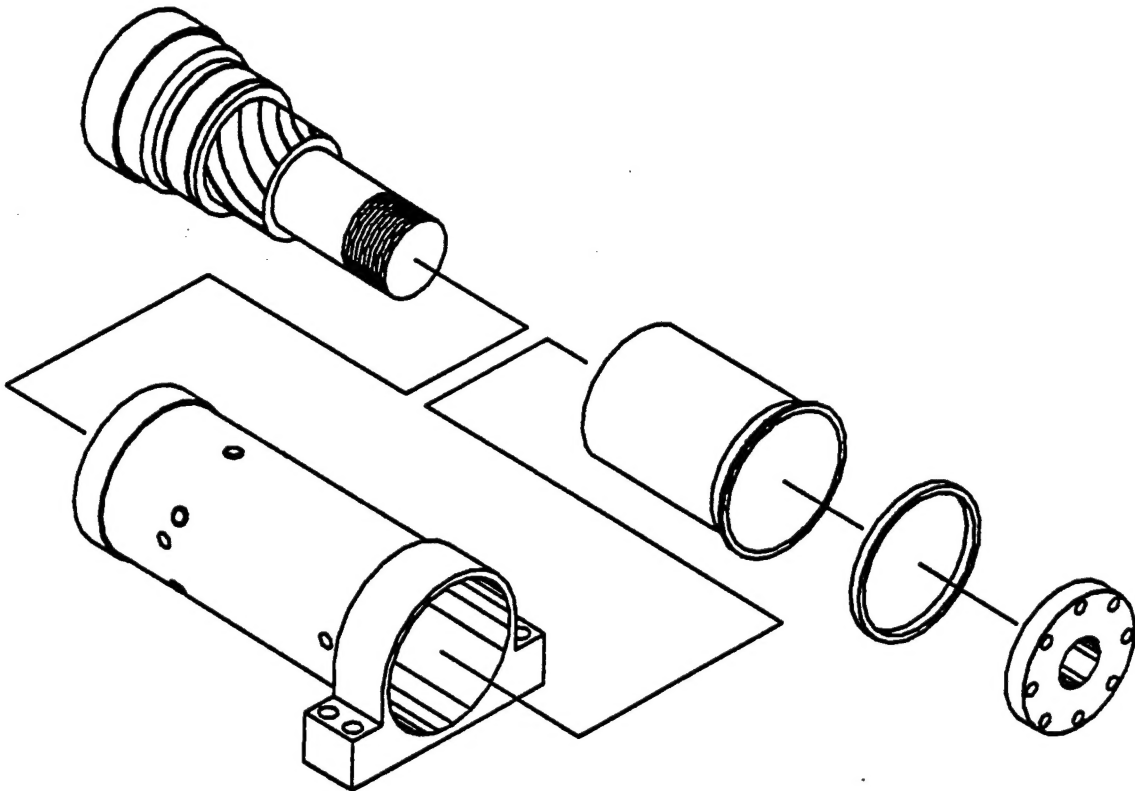
13.1.5   Output Ventura Publisher

D001C003

D001R007